

11 April 1980

MIL-DTL-3655/16B

Inches	mm	Inches	mm
.022	0.56	.505	12.83
.045	1.14	.510	12.95
.104	4.06	.620	15.75
.114	2.90	.630	16.00
.160	4.06	.796	20.22
.215	5.46	.800	20.32
.493	12.52	.843	21.41
.500	12.70	1.625	41.28

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Dimension .800 is the largest overall diameter of the connector.
4. Wrench flats are to accommodate standard wrench openings in accordance with H-28 appendix 10.
5. All undimensioned pictorial configurations are for reference purpose only.
6. Orientation of the body hex flats, mounting flats, bayonet stubs, contacts, and insulator shall be within  $\pm 3^\circ$  of the orientation shown.
7. Dimensions define the maximum length of the connector when assembled to the appropriate cable.

FIGURE 1. Type TWBNC, electrical receptacle connector – Continued.

ENGINEERING DATA

Nominal impedance: 78 ohms.

Frequency range: DC to 500 MHz, maximum.

Voltage rating: 500 V rms, maximum.

Mating connector: See table I of MIL-DTL-3655/15.

Captive contact retention: 6 pounds, axial.

Intended use: Type MIL-DTL-3655/16 electrical connectors are intended for use with various types of twin axial radio frequency cables.

REQUIREMENTS:

Dimensions and construction: See figure 1 and MIL-STD-348.

Force to engage/disengage:

Torque: 2.5 inch-pounds, maximum.

Longitudinal force: 3 pounds, maximum.

Coupling proof torque: Not applicable.

Mating characteristics (see figure 1 and MIL-STD-348 for dimensions):

Inner contacts (sockets):

Oversize test pin: 0.042 inch diameter, minimum (nonclosed entry contacts only).

Test pin finish: 16 microinches.

Insertion depth: .093 inch, minimum.

Number of insertions: One.

Insertion force test:

Steel test pin diameter: .039 inch, minimum.

Test pin finish: 16 microinches.

Insertion depth: .093 inch, minimum.

Insertion force: 2 pounds, maximum.

Withdrawal force test:

Steel test pin diameter: .037 inch, maximum.

Test pin finish: 16 microinches.

Insertion depth: .093 inch, minimum.

Withdrawal force: 2 ounces, minimum.

Permeability: Applicable.

Hermetic seal: Not applicable.

Leakage: Not applicable.

Insulation resistance:  $5 \times 10^9$  ohms, minimum.

Contact insulator captivation: Applicable; torque shall be 1 inch-pound.

Salt spray (corrosion): Applicable.

Connector durability: Applicable.

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Contact resistance (milliohms, maximum):

	<u>Initial</u>	<u>After environment</u>
Inner conductor contacts:	3.0	4.2
Outer conductor contacts:	.4	Not applicable
Braid to body:	.2	Not applicable

Dielectric withstanding voltage: 1,500 V rms, minimum, at sea level.

Vibration, high frequency: Applicable.

Shock (specified pulse): Applicable.

Temperature cycling: Applicable.

Humidity: Applicable, but no measurement shall be made at high humidity.

Insulation resistance shall be at least  $2 \times 10^8$  ohms within 5 minutes after removal from the humidity chamber.

Cable retention force: 25 pounds, minimum.

Coupling nut retention: Applicable.

Part or Identifying Number (PIN): M3655/16 (See table I for dash numbers).

Qualification: Not required.

CONCLUDING MATERIAL

Custodians:

Army - CR

Navy - EC

Air Force - 11

DLA - CC

Preparing activity:

DLA - CC

Review activities:

Army - AT, MI

Navy - AS, MC, OS, SH

Air Force - 17, 19, 99

(Project 5935-4181-04)